REDACTED

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 25 2013

ACTION MEMORANDUM

SUBJECT: Request for a Time-Critical Removal Action at the 35th Avenue Site Birmingham, Jefferson County, Alabama

FROM: Richard J. Jardine, On-Scene Coordinator
Emergency Response and Removal Branch

THRU: James W. Webster, Chief
Emergency Response and Removal Branch 9/25/13

TO: Franklin E. Hill, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed time-critical removal action described herein for the 35th Avenue Site (the Site), located in Birmingham, Jefferson County, Alabama. This request includes approval of an emergency exemption to the statutory limit for a total project cost that will exceed $2 million. The Site poses a threat to public health and the environment pursuant to Section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b)(2) criteria for removal actions. The Site is a residential community located in a heavy industrial area in northern Birmingham, Alabama. The total project ceiling for this time-critical removal action, if approved, will be **$3,180,000** of which **$2,400,000** will be funded through the Regional Removal Allowance.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID:	ALN000410750
Site ID #:	B4M3
Removal Category:	Time-Critical Removal Action

A. Site Description

1. Removal Site Evaluation

A Removal Site Evaluation (RSE) is being conducted based upon a referral from the Region 4 Resource Conservation and Recovery Act (RCRA) Division/Restoration and Underground Storage Tank Branch (RUST). RCRA has been involved with the Walter Coke facility for over 20 years. A 3008(h) Order was issued to the Walter Coke facility in 1989. Pursuant to

negotiations with RCRA, Walter Coke conducted sampling of properties surrounding their facility. The primary contaminants of concern were benzo[a]pyrene (BaP), a polycyclic aromatic hydrocarbon (PAH) and arsenic, both of which are believed to have impacted the surrounding communities via air deposition.

On March 14, 2011, the RUST branch submitted residential sampling data collected by Walter Coke to the Emergency Response and Removal Branch (ERRB) for evaluation for a potential removal action. The data were summarized in a report dated December 2009. With the known environmental contamination identified in the community and the potential for other industrial contamination to have impacted the community, ERRB commenced a RSE. Further, ERRB identified multiple industrial facilities either currently or formerly operating in close proximity to the Site. The RSE expanded the contaminants of concern from PAHs and arsenic to include Target Compound List semi-volatile organic compounds (SVOC), low-level PAH, RCRA 8 metals, PCB Aroclor, and hexavalent chromium. The boundaries of the study area include the neighborhoods of Fairmont, Collegeville, and Harriman Park.

ERRB conducted several sampling activities during the RSE. ERRB has gained access and collected surface soil samples at approximately 1,100 of the 2,000 parcels in the study area. The surface soil samples were collected from zero to four inches deep at these 1,100 parcels. ERRB collected approximately 90 wipe samples from structure surfaces in the study area, garden produce samples from six gardens, and partnered in two separate blood screening events with the Agency for Toxic Substances and Disease Registry (ATSDR) and the Jefferson County Department of Health (JCDOH). ERRB will collect additional soil samples in the study area using direct push drilling to determine the extent of contamination at depth in strategic locations.

The concentrations of arsenic, lead, and benzo[a]pyrene detected in the shallow surface soil range from background levels to approximately 892 parts per million (ppm) for arsenic, 27,000 ppm for lead, and 240 ppm for BaP. The highest concentrations of the contaminants were discovered at approximately 50 parcels within the study area. These 50 parcels are being proposed for a time-critical removal action in this Action Memorandum. After a review of Site conditions and the RSE data generated to date, ERRB has determined these approximately 50 parcels meet the criteria as set forth in 40 CFR 300.415(b)(2) for a time-critical removal action.

2. Physical Location

The Site is located among the communities of Harriman Park, Fairmont, and Collegeville in Birmingham, Jefferson County, Alabama. The geographic coordinates (latitude and longitude) assigned to this Site are for the intersection of 35th Avenue and F.L. Shuttlesworth Drive (a.k.a. Huntsville Road). Those coordinates are 33.978106 °, -81.009329°.

3. Site Characteristics

The land use for this Site is mostly residential. Some parcels have been reclaimed by the City of Birmingham due to lien or flooding. These reclaimed parcels are still appropriate for residential use but are currently empty lots with no structures or have abandoned structures. Other parcels are used as churches, schools and parks with recreational activities. Also land

use within the Site study boundary and surrounding area varies between heavy industry, light industry, commercial, retail, and rail lines.

Groundwater flow has not been determined for this Site, but it is expected to follow the surface topography, which ranges from very flat (Collegeville) to hilly (Fairmont). Numerous creeks, drainage channels and storm water drain pipe systems are found throughout the study area. Portions of Collegeville are prone to periodic flooding and are located within the 100-year floodplain.

Although several yards are well maintained, an equal number are thinly vegetated. Mowing thinly grassed area liberates copious amounts of airborne dust and dirt during the lawn mowing event causing possible exposure to contaminants. Some vacant lots are heavily overgrown and nearly impassable and are less likely to present immediate exposure issues.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Arsenic, lead, and benzo[a]pyrene are hazardous substances as listed in 40 CFR § 302.4 and defined in Section 101(14) of CERCLA, as amended. Human exposure to arsenic, lead, and benzo[a]pyrene-contaminated soil poses a significant threat to public health. Ingestion and inhalation are the primary pathways of exposure. Continued exposure to the soil contaminated with concentrations of arsenic, lead, and benzo[a]pyrene exceeding the Removal Management Levels (RML) may pose chronic health effects, including increased incidence of cancer, to persons living in these communities. The approximately 50 parcels that are the subject of this Action Memorandum exceed the RMLs by approximately an order of magnitude.

5. NPL Status

The Site is not currently listed on the National Priority List (NPL). However, Region 4 Superfund is currently evaluating this Site under the Hazard Ranking System for possible proposal to the NPL.

6. Maps, pictures and other graphic representations

Pictures and other graphics can be found at http://epaosc.org/35thAvenue.

B. Other Actions to Date

1. Previous Actions

Pursuant to negotiations with RCRA, Walter Coke conducted sampling and clean-up of selected properties surrounding their facility. The primary contaminants of concern were BaP and arsenic, both of which were believed to have impacted the surrounding communities via air deposition.

2. Current Actions

Currently the City of Birmingham is preparing to conduct a removal action for infield soil at Maclin Filed, a city owned park in the Collegeville community. They have issued a Notice to Proceed with Bullock Environmental to conduct a removal of the lead-contaminated soil. This work began on September 3, 2013, and is ongoing.

Additionally, a wire fluff pile discovered during the RSE is being addressed as a separate site under the ERRB Removal Program.

C. State and Local Authorities' Roles

1. State and local actions to date

The City of Birmingham has taken action as stated above to address the contaminated soil found in the ball field at Maclin Park and is conducting appropriate inquiry for other suspect properties outside of this study area. Additionally, the JCDOH has conducted two blood-lead screening events to determine current uptake of the metals into the residents of the community. The Alabama Department of Health has provided lab analyses as requested by JCDOH for these blood-lead screening events.

2. Potential for continued state/local response

JCDOH has pledged to conduct additional blood-lead screening events as appropriate upon request of the U. S. Environmental Protection Agency should other normal resources be unavailable for community members. The Alabama Department of Environmental Management (ADEM) has expressed interest in negotiating with potentially responsible parties (PRP) regarding clean-up measures as those PRPs become identified.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The metals and SVOC contamination present on-site poses the following threats to public health or welfare as listed in Section 300.415 (b)(2) of the NCP:

Section 300.415 (b)(2)(i) ***Actual or potential exposure to nearby human populations, or the food chain from hazardous substances pollutants or contaminants;*** The elevated metals and semi-volatile contamination in surface soils presents a high probability of exposure to persons who live in the community. The concentrations of arsenic, lead, and BaP in surface soils exceed the EPA's RMLs for these contaminants. The EPA's Technical Services Section (TSS), in a memorandum dated September 3, 2013, determined a time-critical removal action is appropriate to address potential human health risks in the communities surrounding the Walter Coke facility. The most likely exposure scenario is via ingestion or inhalation of contaminated soil and soil dusts. Another scenario is ingestion of garden produce that has absorbed the contaminants or has airborne deposition of the contaminants. BaP and arsenic are classified as carcinogenic contaminants. Lead can affect almost every organ in the body but is especially a concern for young or unborn children. Lead affects the mental and physical growth of these most vulnerable people.

Section 300.415 (b)(2)(iv) ***High levels of hazardous substances or pollutants or contaminants in the soils largely at or near the surface, that may migrate***; The analytical results of soil samples collected by the EPA show lead, BaP, and arsenic in the top few inches of soil. Exposures occur when residents conduct routine activities such as cutting the grass, gardening, or children playing in the yard. Many yards are very thinly grassed and the lawn mowers produce visible emissions of dust/dirt blowing onto neighboring yards or in the street.

Section 300.415 (b)(2)(v) ***Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released***; Drought conditions may contribute to the potential for air-borne migration of surface soils. Wind action during dry conditions can lead to migration of fine-grained particles from contaminated surface soil. This season has been especially rainy in the southeast. Storm water flow and flooding can cause erosion from their current location and cause subsequent deposition elsewhere of the contaminated soil.

Section 300.415 (b)(2)(vii) ***The availability of other appropriate federal or state response mechanisms to respond to the release***; There are no other federal agencies available to respond. The State of Alabama is unfunded for environmental removal actions therefore unable to contribute resources to a fund-lead removal action.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

A. Emergency Exemption

1. There is an immediate risk to public health or welfare of approximately 50 separate, contaminated parcels. Soil currently found in the yards of many residents of the community, and well maintained nearby parcels is contaminated in excess of the Region 4 RMLs. The families of these contaminated properties and community members who enjoy these parcels are subject to exposure from either lead, arsenic, and/or benzo(a)pyrene on a daily basis. Exposures can occur when residents conduct routine activities such as cutting the grass, gardening, or playing in the yard.

2. Response actions are immediately required to prevent, limit or mitigate an emergency. The analytical results of soil samples collected by the EPA show high levels of contamination in the top few inches of soil. The properties proposed for this removal action are contaminated with approximately ten times the RML for the respective constituents. Concentrations have been screened or analyzed as high as 27,000 ppm for lead, 437 ppm for arsenic, and 91 ppm for benzo[a]pyrene in the surface soil of these properties. Gardening, construction activity such as repairing water pipes, and installing recreational use improvements, such as horse shoe or barbeque pits, alter the surface soil and foster migration of this loosened soil during heavy rain events. Strong storms and

microbursts, experienced by these communities recently, have knocked over mature trees baring more contaminated soil. The contaminated soil must be addressed to eliminate risk of ingestion by neighborhood children or inhalation of dusts by all residents.

3. Unless the EPA conducts a removal action, assistance will not otherwise be provided on a timely basis. Neither the State nor local governments have the funding to accomplish this proposed removal action. Negotiations with one PRP regarding the RSE were unsuccessful a year ago. Identifying and pursuing additional viable PRPs will take additional time and require negotiations. The Site is being evaluated by the Site Assessment Program, but scoring and potential listing of the Site on the NPL will likely take at least a year to accomplish, should the Site be proposed.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

The intent of the EPA proposed actions is focused on reducing the exposure risk to the community members who live at or use the parcels that far exceed the RMLs for the three contaminants of concern. The proposed actions include the following:

a. Survey properties to verify current property use;

b. Inventory existing plants, grasses, utilities, and outbuildings on each property;

c. Remove impediments, as allowed, to provide for an appropriate excavation effort;

d. Excavate the contaminated soil down to a maximum of 12 inches below ground surface where the soil exceeds an RML, or less than 12 inches if such excavation is sufficient to remove the contamination to levels below all RMLs from each property;

e. Backfill with clean soil, shape to original contours, and lightly compact;

f. Replace or repair any EPA-damaged concrete, piping, fencing, outbuildings, etc;

g. Provide temporary on-site storage of contaminated soils generated during removal and decontamination activities, pending further waste characterization and profiling, treatment, reuse and/or recycling;

h. Conduct in-situ/ex-situ screening and/or collect samples for laboratory analysis as necessary;

i. Perform on-site treatment of characteristically hazardous waste, if appropriate;

j. Arrange for off-site transportation and disposal/treatment of contaminated soil according to applicable regulations;

k. Maintain site security and limit access during implementation of the removal action;

l. Conduct all removal actions pursuant to an EPA approved Health and Safety Plan;

m. Temporarily relocate residents if absolutely necessary during excavation activity; and,

n. Re-establish vegetation.

2. Contribution to Remedial Performance

The proposed removal action is warranted to address the threats discussed in Section III, which meet the NCP Section 300.415 (b) (2) removal criteria. The scope of this proposed action is to address the residential parcels that have the highest concentrations of contaminants. At this time, approximately 50 residential parcels will be addressed. The removal action contemplated in this Action Memorandum would be consistent with any remedial action.

3. Applicable or relevant and appropriate requirements (ARARs)

In accordance with the NCP at 40 CFR § 300.415(j), on-site removal actions conducted under CERCLA are required to attain applicable or relevant and appropriate requirements (ARARs) to the extent practicable considering the exigencies of the situation or provide grounds for invoking a CERCLA waiver under Section 121(d)(4). In determining whether compliance with ARARs is practicable; the lead agency may consider appropriate factors, including (1) the urgency of the situation; and (2) scope of the removal action to be conducted. Additionally, under 40 CFR § 300.405(g)(3), other advisories, criteria, or guidance may also be considered (so-called To-Be-Considered or TBC) when conducting the removal action.

Under CERCLA Section 121(e)(1), federal, state or local permits are not required for the portion of any removal or remedial action conducted entirely on-site as defined in 40 CFR § 300.5. See also 40 CFR §§300.400(e)(1) & (2). On-site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action. On-site response actions must comply, to the extent practicable, with substantive but not administrative requirements of ARARs. Off-site activities such as transportation and disposal of wastes are required to comply with all applicable requirements, including the administrative portions.

As provided in CERCLA Section 121(d)(3) and the Off-site Rule at 40 CFR §300.440 *et seq.* the off-site transfer of any hazardous substance, pollutant or contaminant generated during the response action will be sent to a treatment, storage or disposal facility that is in compliance with applicable federal and state laws and has been approved by the EPA for acceptance of CERCLA waste.

The EPA has corresponded with ADEM regarding the ARARs for this Site. The EPA identified clean-up parameters as stated in this Action Memorandum and specifically requested identification of any State ARARs for the EPA's consideration prior to initiation of

the on-site response action activities. ADEM identified some non-promulgated requirements and some "to be considered" requirements that the EPA has addressed in writing.

4. Project Schedule

Initial removal activities related to site preparation are anticipated to begin within one month of approval of this Action Memorandum and receipt of funding for proposed actions. It is anticipated that once activities begin, this removal action will take approximately 35 weeks of on-site work to substantially complete, plus additional time to establish vegetation dependent upon weather conditions.

B. Estimated Costs

Extramural Costs:

Regional Removal Allowance Costs:	
ERRS	$2,400,000
Other Extramural Costs Not Funded from the Regional Allowance:	
START	$ 250,000
Subtotal, Extramural Costs	$ 2,650,000
Costs Contingency (approx 20%)	$ 530,000
TOTAL EXTRAMURAL COSTS	**$ 3,180,000**

VII. OUTSTANDING POLICY ISSUES

No outstanding policy issues have been identified at this time.

VIII. ENFORCEMENT

Enforcement activities have been initiated and are ongoing. It is expected this action for the Site will be conducted as a fund-lead removal action. See Attachment 1, "Enforcement Addendum" for more detail.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be $4,764,800 using the following formula:

(Total Extramural Costs + Total Intramural Costs) + (55.33% (Total Extramural Costs + Total Intramural Costs) = Estimated EPA Costs, or ($3,180,000 + 200,000) + ((55.33% * ($3,180,000 + 200,000)) = $5,250,000[1]

[1]Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific directs costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

IX. RECOMMENDATION

This decision document represents a selected removal action for the 35th Avenue Site in Birmingham, Jefferson County, Alabama, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Conditions at the Site meet the NCP section 300.415(b) criteria for a removal and the CERCLA section104(c) emergency exemption from the $2 million limitation. I recommend your approval of the proposed removal action and the $2 million exemption. This removal action is anticipated to be fund-lead, with a total project ceiling, if approved, of **$3,180,000** of which approximately **$2,400,000** will be funded by the Regional Removal Allowance.

APPROVED: _____ DATE: 9/25/13

Franklin E. Hill, Director
Superfund Division

DISAPPROVED: _____ DATE: _____

Franklin E. Hill, Director
Superfund Division

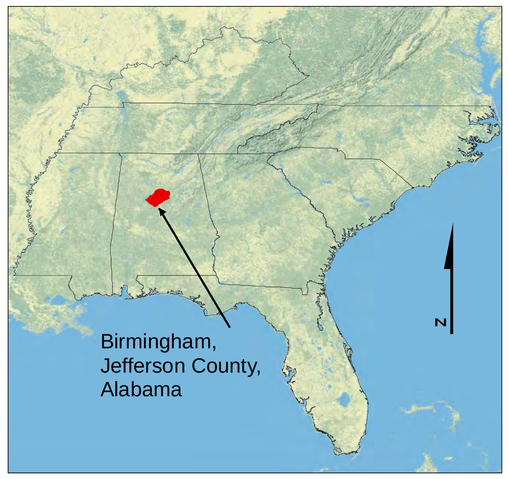
Attachments:
Enforcement Addendum
Photographs
Figures

Note: Due to the CONFIDENTIAL nature of the material, the Enforcement Addendum has been withheld. Withheld material is available, for Judicial review only, at EPA Region IV, Atlanta, Georgia.

Legend

- 100 Year Floodplain
- Potential Responsible Party
- Stormwater System Juntion
- Lagoon
- Stormwater System
- EPA Study Line

Feet
0 750 1,500



35TH AVENUE SUPERFUND SITE
BIRMINGHAM
JEFFERSON COUNTY
ALABAMA
TDD NO. TNA-05-003-0148

FIGURE
100 YEAR FLOODPLAIN AND STORMWATER SYSTEM WITH RML EXCEEDANCE MAP

United States Environmental Protection Agency

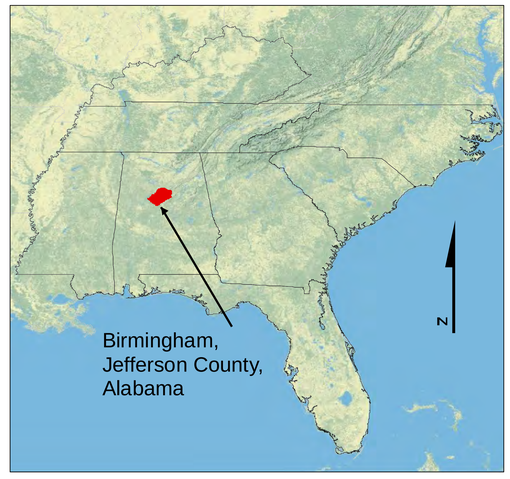
OTIE
Oneida Total Integrated Enterprises

Legend

- 10-3 Exceedance
- Below 10-3 Exceedance
- EPA Study Line

Feet

0 — 1,000 — 2,000



35TH AVENUE SUPERFUND SITE
BIRMINGHAM
JEFFERSON COUNTY
ALABAMA
TDD NO. TNA-05-003-0148

FIGURE
10-3 EXCEEDANCE MAP

United States Environmental Protection Agency

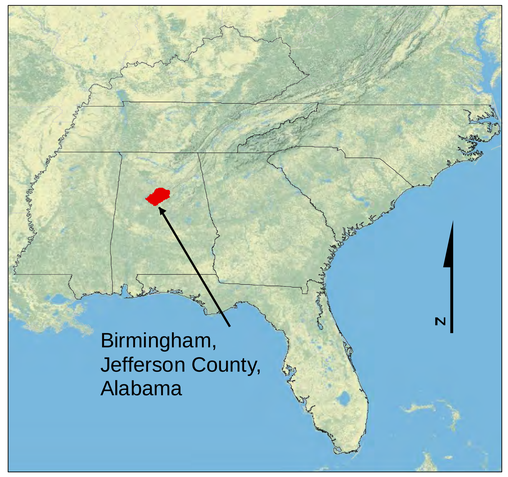
OTIE
Oneida Total Integrated Enterprises

Legend

EPA Study Area

Feet

0 1,000 2,000



35TH AVENUE SUPERFUND SITE
BIRMINGHAM
JEFFERSON COUNTY
ALABAMA
TDD NO. TNA-05-003-0148

FIGURE
EPA STUDY AREA

United States Environmental Protection Agency

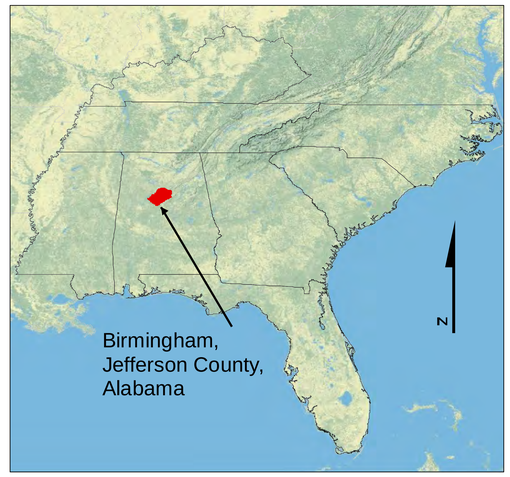
OTIE
Oneida Total Integrated Enterprises

Legend

- Exceeding RML
- Below RML
- Study Line

NOTE:
RML - Regional Management Level

Feet
0 750 1,500



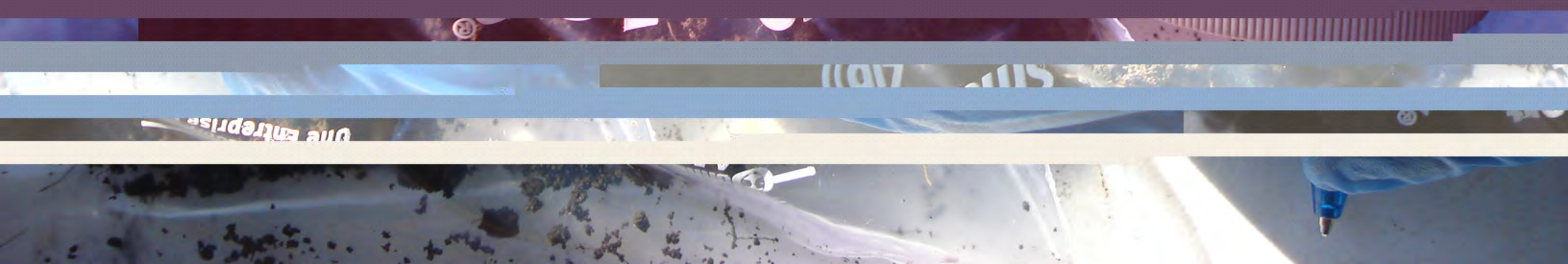
35TH AVENUE SUPERFUND SITE
BIRMINGHAM
JEFFERSON COUNTY
ALABAMA
TDD NO. TNA-05-003-0148

FIGURE
REGIONAL MANAGMENT LEVEL
COMPARISON MAP

United States Environmental Protection Agency

OTIE
Oneida Total Integrated Enterprises


STOP




SPEED
LIMIT
35


The Opportunity Academy
At Riggins School
KEEP
Birmingham
Beautiful
Commission
Award


42ND AVE N
30TH ST N


60 T660
ADDISON


FAIRMONT PL
40TH AVE N


27TH CT N


27TH CT N


3708


3716


Cornerstone
Apostolic Church
Apostle Joseph Hardy, Jr.
Pastor
DEDICATED IN MEMORY OF
Mr. Earnest Colvin


LANDON


POLICE


44TH AVE N


NO DUMPING


Elect Edward Maddox
MADDOX
Birmingham City Council
District 4


MAIL
APPROVED BY THE
POSTMASTER GENERAL


DODGE
AVENGER
TSMYL3


ADT


Shady Grove
Baptist Church


SAINTS
TABERNACLE
AFM CHURCH OF GOD
WORSHIP SERVICE
SUN 930 1100 WED 647 PM


PRIVATE
PROPERTY
KEEP OUT